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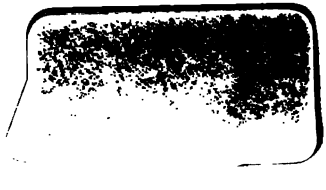
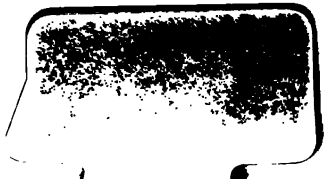
CLIMATE OF EGYPT

Dr DALRYMPLE.





CLIMATE OF EGYPT.

METEOROLOGICAL AND MEDICAL

OBSERVATIONS

ON THE

CLIMATE OF EGYPT,

WITH

Practical Hints for Invalid Travellers.

BY

DONALD DALRYMPLE, M.D. Lond., F.R.C.S.

180. b. 18.

LONDON:
JOHN CHURCHILL, NEW BURLINGTON STREET.
MDCCCLXI.

151. b. 203.

BLANCHARD & SONS,
62, MILLBANK STREET, WESTMINSTER.

TO

THE FRIENDSHIPS MADE IN THE EAST,

AND

RETAINED, I TRUST, IN THE WEST,

IN REMEMBRANCE

OF HAPPY HOURS PASSED IN

Sunny Egypt,

THIS TRIFLE IS DEDICATED.

PREFACE.

For this slight contribution to Climatology, the forbearance accorded to a first effort of authorship is requested.

The writer has only been desirous to add his pebble, in passing, to the waymarks of science.

Norwich,
March, 1861.

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METEOROLOGICAL AND MEDICAL OBSERVATIONS

ON THE

CLIMATE OF EGYPT.

CHAPTER I.

INTRODUCTORY REMARKS.

THE hold acquired by meteorology upon the public mind, though of slow and gradual growth, is, nevertheless, a very marked feature in scientific progress.

Records of weather and changes of temperature are no longer stowed away in the last pages of county pocket-books, or to be found only in almanacs; the leading journals that daily feed the omnivorous reading world would be incomplete without the "weather column," while weekly chronicles and gardeners' gazettes contain their resumés and analyses *in extenso*.

This is not only because people take so much more interest in every science than formerly, but because close observation, accurate recording, and correct

deductions, have given a force and precision to this previously unknown. Observation and notation are the sole reliable means by which a correct estimate can be arrived at of the character of a climate; sensations cannot be trusted, nor reliance placed on cursory notices or personal impressions.

Many careful meteorological observations have been made in Egypt, and have greatly aided in the inquiry now before me, viz., the value of Egypt and its climate, in disease.

Sir Gardiner Wilkinson, Dr. Abbott, Lord Haddo, Mr. Rhind, and several others, have published their records. They all vary in the mode and conditions under which they were made, but they have an individual and aggregate value, to which I am desirous to contribute.

Much depends upon the circumstances in which the observer is placed as to the direction his observations will take; and, as a physician, my object was to make mine professionally useful. I went to Egypt in obedience to the orders of my physicians, to obviate the effects of many years' over-work. A climate in which an active skin, free pulmonary exhalations, plenty of sun, amusement, occupation, and freedom from head-work could be combined, was the postulate, and this, I was told, I should find in Egypt.

In addition to getting well myself, I was anxious to promote recovery in others; I was desirous to observe whether the conditions under which I was

placed were those required for restoration, and I set myself to provide the means of observation. The instruments provided for me by Messrs. Negretti and Zambra, the eminent makers of scientific apparatus, consisted of wet and dry bulb thermometers, an attached ditto, maximum and minimum ditto, a black bulb for solar, and a white one for terrestrial radiation, Moffatt's ozonenometer papers, a rain gauge, and an aneroid barometer. The rain gauge was a superfluity.

These instruments, with the exception of the aneroid, were all tested and certified by the accurate Mr. Glaisher, upon whose tables the observations were recorded.

I also constructed and took out with me, in sections, an instrument-house, to be erected as soon as I began to record observations; and, as will be seen on reference to the tables, this took place as soon as I was on board my dahabeëh.

Herein consists the difference between the observations taken by most other observers and those made by me; mine were taken under conditions as nearly as possible constant, whereas other, and far more competent observers, have been compelled to vary in the position and condition of their instruments.

Some observations were taken outside houses, some inside cabins: in some the instruments hung from cabin-window frames, and consequently subject to the temperature of the boat; some were taken in tombs,

some in tents ashore. My instrument-house was placed on a pivot, fixed in a pillar, upright on the deck; the penthouse-roof was its protection from the direct rays of the sun, the deck awning did not cover it, and the only condition for which I could not secure constancy was its aspect by the compass.

At starting, all the instruments faced due north except the barometer, which was due south. As the general course of the Nile is from south to north, this was their general aspect; but, of course, in the different reaches of the river their bearings varied. In ascending the river there was no occasion to reverse the position; but when we descended, and had to moor, it was always head to the stream, and then, owing to the facilities of the pivot construction, the alteration was easy and immediate.

The observations were taken at 9 A.M. and at sunset, these hours being selected because they are those before and after which, an invalid will not prudently expose himself to the air.

It may be objected that these are out-of-door observations, and do not accurately represent the temperature of the rooms or cabins in which parties live.

My reply is, that the great aim and object of coming to Egypt is to be as much as possible in the open air, to respire and perspire there, to sun yourself, decarbonize yourself, reoxygenate yourself. You may get your cabin up to any temperature you like; two or three extra wax lights will give several additional

degrees of warmth, and one acquaintance of mine had a portable stove for filling his cabin with heat and carbonic acid gas.

Estimating the average difference between indoors and out to be about 12 degrees, there is no difficulty in arriving at the interior temperature.

A few sources of error, of course, existed. It was at first very difficult to keep up the supply of moisture to the wet bulb, so rapid is the evaporation in that dry climate, and the copious deposit of alluvial matter clogged the capillary action of the conductor.

In a few instances, at night, it was dark before the observation was made, but then every care was taken to protect the instruments from the heat of the lantern. The aneroid barometer appeared to perform perfectly well, but as I have no correction for it (each instrument requiring special correction for itself) it can only be taken as an approximation. A reference to the tables will show how small the variation of the barometer was, so that the want of correction is less felt.

No one is more sensible how slight this contribution to the climatology of Egypt is than I am, and it is best expressed by the French term of "Mémoire pour servir."

The meteorologist will probably take the tables and work out the results for himself. Many will be content with the summary I have given, but more will probably be satisfied with the following condensed statement:—

In the month of December—

The mean reading of the Barometer was	29·724 inches.
The mean temperature was	58·5 degrees.
The highest reading	75 „
The lowest „	39 „
The average range	36 „
Mean amount of cloud—10 being the maximum	1·6

In January—

Mean of Barometer	29·540 inches.
Mean temperature	59·2 degrees.
Highest reading	82 „
Lowest „	38 „
Average range	44 „
Mean amount of cloud	1·2

In February—

Mean of Barometer	29·398 inches.
Mean temperature	60·4 degrees.
Highest reading	90 „
Lowest „	40 „
Average range	50 „
Mean amount of cloud	2·9

In March—

Mean of Barometer	29·649 inches.
Mean temperature	58·1 degrees.
Highest reading	70 „
Lowest „	49 „
Average range	30 „
Mean amount of cloud	0·9

The results of these observations are—

1st. The very slight variation in the barometer—the greatest range being less than one-third of an inch.

2nd. That the mean temperature of these months is nearly the same as our months of June, July, and August.

3rd. That the moisture of the atmosphere, as compared with that of our summer months of June, July, and August for the last five years, is as 56 to 81; and yet three of these years in England have been remarkable for their dryness.

It will, of course, be observed how great the range of the thermometer is—in February, as much as 50 degrees between the highest and lowest; yet it must be remembered that the minimum never registered within 6 degrees of freezing point out of doors, while in the cabin the thermometer was 50 degrees; at home,

> "Dick, the shepherd, blows his mail,
> And the milk comes frozen home in the pail."

No water froze in our ewers, nor were cream ices seen on the breakfast table.

It is, however, in the dryness of the atmosphere that the most notable difference between the climates of England and the Nile consists. I am not aware that any regular observations have hitherto been recorded, or comparisons instituted, in this important branch before.

On the climates of Alexandria and Cairo I took no series of observations: they have been often made before, both on a much more extended scale, and under much better conditions than I had opportunity for. Moreover, it was my object to test the climate in which the greater part of the health-seekers who resort to Egypt spend most of their time. I however

formed an opinion on Alexandria and Cairo, which will be given elsewhere.

In Syria, I recorded no series of observations on which any reliance could be placed: the conditions were so variable, and the sources of error so many, that no accurate result could be obtained—at least, in the circumstances under which I travelled.

All the instruments I took out I brought home safe, thanks to the careful packing of Messrs. Negretti & Co. They have been verified and found correct, and they are now doing duty in a very different climate and under very different skies, and the highest point they have reached this summer is far below that of their winter range in Egypt.

The winter—indeed, the whole of the year 1860—has been an exceptional one throughout Europe; and those who, from long residence or frequent visits, are best able to form an opinion, speak of the winter in Egypt of 1859–60 as an unusually cold and boisterous one.

I have given no records of the black bulb and terrestrial radiation thermometers; the reason being, that I was never long enough stationary to test them. The deck of a Nile boat was no real test for either, and, unless under a special guard, there was no security if I left them on shore.

CHAPTER II.

THE CLIMATE.

In a country extending over so many degrees of latitude, and varying so much in its physical features, an identity of climate obviously cannot prevail throughout.

If I divide Egypt into two broad divisions, viz., the Delta and the Valley of the Nile (strictly so called), it will answer all my purposes.

The first division will occupy very little time: except as a country of transit, no one bound on health errands will spend more than a few days in Alexandria, or a few hours in the Delta.

My observations are not intended for those who go pig-sticking in the sugar-canes and reed jungles, or to fill their game bags with snipe, duck, and plover.

The climate of Alexandria is not one in which the invalid from Europe will either feel comfortable, or receive benefit.

The excessive humidity, proved to demonstration by repeated hygrometrical experiments, renders a temperature, not itself more than 70 or 75 degrees, uncomfortably hot.

The climate of Cairo is a great improvement upon

that of Alexandria, but it has, I think, been too highly rated.

It is true that, in November and December, bright genial sunshine, with moderate breezes, is the prevailing characteristic; but the mornings and evenings are chill, not to say cold, and there is a considerable degree of moisture in the air, as shown by the light hazy fogs, which are, however, dispersed as the sun raises the temperature.

Rain is a rarity, it never occurred while I was at Cairo. The construction, position, and sanitary arrangements of Cairo, exercise a material influence on the hygienic character of the place as a residence.

The Uzbekëeh, that large square in which the best houses and hotels are situated, is only a reclaimed swamp, and, indeed, but a few years ago, was regularly inundated, and will be so again when a higher Nile than usual occurs.

Coolness and shade, not warmth and sunshine, are the desiderata of Cairo for so large a portion of the year, that the streets are purposely narrow in the extreme, and are shaded by houses, whose overhanging lattices nearly touch. Hardly a ray of sun penetrates many of these alleys; the soil has been plentifully watered during the night and early morning, and a very palpable chill is produced by the evaporation going on, while the sudden changes from warmth to cold, when turning a corner from a square into one of these streets, or into the bazaars, are as striking as undesirable.

There is, however, so much in Cairo, both in the locality itself and in its society, that many would be tempted to stay there, if proper accommodation for invalids was provided. The three principal hotels are, in this respect, sadly deficient, and when the very large amount of transit traffic, as well as the number of invalids and travellers, is considered, the hotel accommodation is shamefully below the requirements and the prices charged for it.

There are very few rooms with fire-places, yet a fire in the evenings of December and January is to the invalid something more than a comfort, it is a requisite.

Ill-fitting windows, draughty passages, open doors, and rooms carefully shaded from the sun, are not what are wanted.

The quality of the food is by no means good or nutritious, nor such as persons whose health is below par, require: it needs and might obtain great improvement.

The difference between the extremely comfortable private residences, and the very uncomfortable hotels of Cairo, only show by contrast, more forcibly, what might be done; and I feel sure that, in a commercial point of view, an hotel constructed to meet the wants of the invalid would *pay*.

I had occasion to notice serious mischief, not to mention inconveniences, produced by unsuitable lodging and inferior food in more than one instance.

I dare say I shall be deemed hypercritical by

many who have enjoyed the busy scene of "high change" at Sheppherd's, or the quiet cleanliness of Williams'; but I write for the feeble, not for the robust; and I cannot speak too strongly upon the sense of cold complained of by invalids at Cairo.

Till the requirements of the health-seeker are more consulted, I advise him to stay no longer than is necessary to see something of what is so novel, so intensely interesting, in this most picturesque, most oriental of cities: a better climate, a life far more invigorating awaits him close by.

To your boat, O, Meshowesh! cast off into the broad-flowing Nile, hoist your wide wings to the first flutter of the breeze from the north, and away to the tropic. What an exchange for the thick fogs, drizzling rains, keen winds, pelting sleets, drifting snows, and icy frosts of old England!

Day succeeds day in a nearly constant round of bright cheering sun, soft breezes, and blue skies; the heat rarely (though sometimes at noon-day) too great to be quite comfortable; the early mornings just cool enough to make the use of a shawl or over-coat wise for those who are not in active exercise, while for those who are stout enough for an ante-jentacular ramble to shoot a stray wild duck by some pool or canal, no coat is needed, and no finer preparation can be found for the eggs and bacon, Irish stew, or curried chicken that await his return to the dahabeëh.

The day passes in quiet enjoyment of the serenest

atmosphere; health is drank in as you glide along. Evening comes on rapidly, and again the shawl or over-coat becomes an absolute necessity, not because of actual cold, but on account of the relative reduction of temperature that then takes place. The same conditions that make the Italian and Spaniard draw his cloak round him when the Angelus rings out, makes the Arab wrap his bournous close and pull the hood over his head, and ought to make the too often careless and sceptical Englishman do the same when the sun goes down.

Many a time has the good of weeks been frustrated by a few minutes' neglect of an easy and obvious duty. The lingerer on deck remains to behold those marvellous sunsets, those ever-changing, all-glorious hues, that the East alone produces in such perfection—hues so gorgeous that the pallette cannot over-paint, nor the pen over-describe them. The temptation to stay till the last beam of the second glow departs is all-powerful, and, with the precaution I have advised, may be safely indulged.

The night speeds on with no interval of twilight, and then the magnificence of the star-crowded heavens tempts to still longer delay; but this had better not be. The saloon with all its comforts, the tea-table, books, chess—it may be a piano, fiddle, or guitar—the inevitable diary or journal, wind up a day which, as far as my experience went, was ever too short, and never too long.

Sometimes high winds spring up, but they rarely last long, till much higher up the river, and later in the season; but if a snoring breeze right abaft sends you rushing through the waters, when you turn in, you have the satisfaction of knowing that you have run off 70 or 80 miles since morning. Later in the season, however, in February and March, frequent strong winds prevail, especially in the upper country; and this year, on the 7th day of February, a most violent wind storm occurred while we were moored at Thebes. Clouds of sand and dried mud dust obscured the sun and penetrated everywhere, while to leave the boat was well nigh impossible, though it lasted three days. This storm was not confined to the upper country. At Cairo and Alexandria it was equally violent, and, at the former place, houses were blown down with considerable loss of life. Nearly all over the world will this year, 1860, be memorable for its furious and disastrous wind storms.

Towards the end of March, or early in April, the khamseen, or hot wind from the south and south-east, gives a few preparatory puffs, but it does not begin to blow with its blasting, withering influences at all regularly, till early in May.

Until that time the wind is pretty regularly from the north, varying in its intensity from a slight to a steady strong breeze, but it almost always dies away at night.

Long before the khamseen begins, the traveller has gone north, and, therefore, it need not enter into his calculations in the *upper* country at all.

The all-absorbing topic, rain—that never-ceasing source of hopes and fears in other countries—here has scarcely an existence. During the time over which my observations extended there were two or three rain showers, but the quantity was so small that none could be collected in the rain gauge. From the time I left Alexandria till the time I returned there, I never unfurled an umbrella against wet.

Here the same conditions may be reckoned on year after year. There may be winters in which the cold or heat will be more or less, but the anxious hope of the invalid is never frustrated. The atmospheric phenomena are very constant, and in Egypt you hear little or none of that extenuation of the climate which in Italy, Spain, or the South of France so often meets the remonstrant disappointed health-seeker, "Oh, such a season as this never was known."

The mean result of all the observations I have collected that were made by others, and those made by myself, only give a difference of 1°.1, and yet one set of them was made 98 years ago.

The notes taken by me show that the favourable climate of the Saëed is continued, and in some respects improved, in Nubia. The air is much drier even than in Upper Egypt, and the rapidity with

which the reservoir of the wet bulb thermometer was exhausted was very remarkable. It is more bracing from its closer contiguity to the desert, and there is far less dew at night.

The arrangements requisite for reaching the river above the first cataract being much more complicated, many who go for health will ask, whether it is *necessary* to go beyond Thebes, or, at all events, further than Assouan? I reply no, *not necessary;* but I can hardly understand any one who has gone thus far stopping short of Philœ Edfoo, or Aboo Simbel.

That the climate is as good is unquestionable; and, *au reste*, the traveller is well repaid the extra labour, cost, and trouble, for the ruins and rock temples are among the most wonderful and interesting in the whole valley of the Nile, though, for the most part, they have not the hoar antiquity of those below the first cataract.

Still, if the means or inclination of the traveller lead him to make Thebes his halting-place, he will find the climate advantages admirable, and for some forms of disease, as good as can be found.

If Egypt was a country in which the least reliance could be placed on the Governments, if there were only ordinary security for property or for the fulfilment of engagements, Thebes is the place where there would be a sanatorium.

A steamer making the voyage up the river in five

and down in three days, would take the invalids direct from the railway at Cairo, and deposit them in a properly-managed hotel, which would soon be the head quarters; whence, as returning health permitted, they would extend their voyage or return home, as they pleased. But in a country where plunder and peculation, lying and roguery, are recognised principles of action—where there is security for nothing but for the strongest—where the only potent levers are bakshéesh and kurbash—who would invest a piastre in "The Thebes Royal Sanatorium and Vital Prolongation Company (Limited)"?

But changes must come. The political events of the last two years in the West are projecting their shadows on the East. Egypt will belong to some European power (by preference, to England), greatly to the benefit of her oppressed, over-squeezed, degraded Fellah.

There is yet one other district which cannot be quite passed over—viz., that of the desert.

It is scarcely possible to imagine anything more invigorating and life-giving than the air of this region; there is a dryness and elasticity about it like nothing else; and the sense of renovation when breathing it round the Mokattam hills, or farther on in the actual wilderness, is to the languid invalid like a new lease of life. If I were compelled to pass the whole spring and summer in or about Cairo, I

should prefer a tent a few miles into the desert to anything else; but I shall have to touch upon this hereafter. Having now sufficiently described the nature of the climates of the different districts, I pass to the consideration of the various disorders to which they are particularly applicable.

CHAPTER III.

THE DISORDERS TO BE CURED OR RELIEVED BY THE CLIMATE OF EGYPT.

Phthisis.—Much reproach has been cast on our profession for the want of success attendant on recommendations of change of climate. This is no more just than similar reproaches on account of failures in the application of other curative processes; but it is quite as just, and results, in both instances, from either an inadequate knowledge of the disease, or from an undue estimate of the power of the remedy.

Fully impressed with the great remedial influence of change of climate, I do not like to see its utility diminished by indiscriminate use of it.

That eminent physician, my friend Sir James Clarke, has taken the question of climate out of the hands of the empiric, and not only placed it in its true position, but has done so with the discretion of a philosopher and the taste of a scholar. He knew as well what it could not, as what it could, effect. Men must learn what to expect from change of climate, and its limits of action, before they prescribe it; and I protest, *totis viribus*, against the cruel practice of expatriation, when it is obvious no good is

to be obtained, because perhaps it saves making a painful communication to a patient or his friends, or, quite as frequently, because the adviser is at the end of his resources, and does not know what else to do.

I have seen many who have been sent to Egypt, and elsewhere, who ought never to have been removed from the tender ministrations of home. I have known those who never even reached their Nile boat; others whose bones have been laid in the caverns of Girgeh or Keneh; others who have only lived to be borne to the cemeteries of Cairo or Alexandria. This is an abuse of a remedy which ought to cease.

Per contra, many a life has been sacrificed by retaining the invalid in a climate specially fitted for the development of the disease, under the idea that it was not requisite *to go yet.*

It has been often advanced as a fact, and as a reason why phthisical subjects should go to Egypt, that the disease of phthisis is unknown there.

This is a great error; there is phthisis in Egypt, and a good deal too. But it exists under conditions now well understood, which account for it, and which do not militate against the country as a resort for consumptive cases.

While consumption is almost unknown among the Fellaheen of the Nile Valley, and among the Nubians and Abyssinians of the upper country so long as they are in their native villages, it becomes common enough when they are forced into the armies and navy of the

Viceroy, or into the hareems and establishments of the wealthy of the land.

The idea that slavery has ceased in Egypt and Turkey is a delusion; it has ceased on paper, and, by law, there is no property in a slave; but the "domestic institution" flourishes, and it is only the price that has changed.

The Nubian slave women in the hareems, and the black soldiers, are equally frequent victims; but there are two causes which contribute very largely to this result:—

1st. The change from a wandering, out-of-door, untrammelled life, to one of comparative confinement in barracks or seraglios.

2nd. The change from a tropical temperature to a more temperate one.

The combined effect of confinement and lower temperature, as producing tubercular degeneration on wild animals, is perfectly well known. The majority of monkeys in this country die of this disease; and the sanitary condition, both as to food, air, exercise, and ventilation, under which the imported population live, is unfavourable to health, while the moral degradation is hardly less so. On the other hand, if phthisis be not unknown in their native homes, yet competent observers testify to a general immunity from the disease.

There is strong testimony to the fact that those

who come from colder latitudes to Egypt free from phthisical tendencies, remain so, nearly as much as the natives; and there can be no doubt that many who have come so afflicted have either lost the disease or have been greatly improved, *if they have come early enough.*

Here is, I believe, the key to the whole question.

I have sent many cases to Egypt long before I had occasion to go there myself; some have got perfectly well, while others have so much improved as to be able to live, and are still living, a fairly comfortable existence in Europe; but the success has been in exact proportion to the earliness of the migration. How often have I had to combat the argument—"Oh, I am not bad enough to want to go yet!" Yet more often have I had to deplore the *res augustæ domi* that have prevented the journey.

Of the general utility of the climate of Egypt, in tubercular disease, I entertain no sort of doubt; but it is impossible exactly to draw the line, and say how much disease renders it unwise to send a patient so far from home. I would carefully guard myself from anything like dogmatism, knowing some instances of marked improvement in cases of very advanced disease. As a rule, I would not dissuade a patient from going because he had a cavity in one lung, even if tubercles were deposited to a moderate degree in the other.

A large cavity in one lung, with a fairly healthy

condition of the other, might also go; for we know how long a life, and a tolerably active one too, can be maintained with one lung disorganised. But when a cavity exists in both lungs, or when there are indications of *extensive* deposit throughout one lung while excavation has begun in the other, this case had better stay at home. What happens in these cases generally is, an improvement for a few weeks, sufficient to justify hopes—an improvement often, indeed generally, over-estimated—a sudden attack of subacute pneumonia or bronchitis, and a speedy death.

I have made several inquiries as to the mode in which death has occurred in those who have come phthisical to Egypt, and died there. A few have sunk very gradually, but the majority have died of an intercurrent inflammatory attack (and this I attribute to the stimulating nature of Egyptian air acting on lungs too far damaged), or of dysentery. The tendency of all tubercular patients to this disorder is only too well known.

I do not say that Egypt is not as desirable a place as Madeira or Malaga, Nice or Rome; it is as good, or better, but these cases are best *at home*.

It is an affair of no small responsibility to advise a patient to take a journey of three or four thousand miles, to leave behind many of the tender attentions by which he has been surrounded, to encounter, not hardships exactly (for they cannot be called so), but

defective sanatory arrangements, such as hot cabins, cold rooms, draughty railways, without a fair and reasonable prospect of amendment.

All physicians know, and many who are not of the profession know only too well, the sanguine hopes entertained by consumptive people—happy often for the sufferer that it is so; but the adviser must be on his guard against them—his judgment, not his feelings, must be his guide; and, by a careful estimate of his patient's powers and constitution, and the extent to which the disease has advanced, he must decide.

Bronchitis.—The next disorder on the list for the relief of which the invalid resorts to Egypt, is bronchitis, especially in that chronic recurrent form that so largely prevails in cold, damp England, which comes with the fogs in November, and lasts till the east winds have departed in the spring.

These repeated attacks of bronchitis lay the foundation of organic diseases both of the respiratory and circulatory organs, to a far greater extent than the non-professional world knows: and what has been lightly characterised as "only a cold," has been the death-warrant of thousands.

The benefit derived by bronchitic patients is most remarkable; the dry, balmy atmosphere of the Nile soothes as well as strengthens the irritable air-tubes.

The air, moderately bracing, especially in Nubia, builds up the debilitated frame, and the improvement

of the general health checks the just germinating seed of organic mischief.

Longing to breathe fresh air freely, the bronchitic patient has hitherto not dared to hail it as a friend; his anxious eye scans the skies, his knuckle taps the oft-shaken barometer, the thermometer is reckoned up, before he ventures to expose his windpipe to the breeze.

Here, at length, he has the cloudless sky, the life-giving sun, and a continuance of both on which he can rely; for here the barometer does not vary half an inch in three months.

It will be objected to this statement, that my tables show a very large diurnal range of the thermometer. This is true; but it is the regularity of this range which makes it innocuous—it can always be known when it will take place, and, therefore, provided against; there is no chopping of the wind from south to east, no leaving the bright sunny side of the Piazza di Spagna for an icy cold blast round the next corner.

The early mornings are cold, so are the late evenings—too cold for a bronchitic patient; but there is no *need* of exposure to it, either early or late. He *need* not turn out till after breakfast, and can turn into his saloon as the sun sinks below the horizon; all the rest of the day may be safely, pleasantly, and healthfully employed—*sub jove.*

No doubt it will be asked, Is there no bronchitis in

Egypt? No doubt plenty; on board my boat, with a crew of sixteen sailors, I had every variety of cough, thick and thin, hollow and loud, chokey and dry, wheezy and phlegmy. Mustard plasters, tartar emetic, morphia lozenges—all came into play; but the life these men lead, must be borne in mind. They are in and out of the water constantly, often when they have been tracking or pulling till they are bathed in perspiration; their clothes dry on their backs, and they sleep in the open air. In addition, I am sure, from frequent auscultation of the lungs of my crew and other natives, that the use of the hubble bubble, or water pipe, the smoke of which is inhaled into the lungs themselves, irritates the bronchial tubes and disposes to the disease.

It is admitted by the men themselves that the use of the nargilhé produces broken wind.

Asthma.—This is a disorder for which the Egyptian climate has been recommended, but it is very difficult to say whether rightly or not.

It is popularly as well as professionally known, that the climate and locality that suits one asthmatic patient disagrees completely with another.

One of my companions in the voyage was an habitual asthmatic; he had suffered from his youth, and had passed ten winters in warm climates. He had no attack while in Egypt, except one, clearly attributable to error of diet, and that by no means severe.

Another gentleman who at the same time, with the same complaint, went out, suffered severely, especially on the Nile; in fact, so capricious is this ill-understood disorder, that it is not possible to predicate the suitability of a climate to any given case.

Leaving now the class of respiratory diseases, I will touch on one or two others to which much benefit accrues from this climate.

Renal Disorders.—The disorders of the renal system, especially the early stages of Bright's disease, are those in which obtain, in fullest force, the maxim "*Principiis obsta.*"

Unfortunately, the advances of this formidable malady are so insidious, the preliminary warnings so slight, that the disease has fastened firmly and fatally on its victim before alarm is taken.

When, however, the sagacity of the physician, the previous history of the patient, or his own symptoms, have led to an investigation sufficiently early, then of all climates none is productive of more benefit than Egypt.

Let us, for a moment, reflect that the true pathological condition of the organ at this stage is one of congestion; a local determination of blood to the kidney, at the same time that both quantity and quality of the blood is generally far below par.

What, then, are the conditions under which improve-

ment is to take place? A free, *very* free action of the skin, active decarbonization of the blood, and adding tone to the system. Spare the eliminating function of the kidneys as much as possible, and improve the quality of the blood. These are all obtainable in this climate. A constant augmented insensible perspiration is to be had without any effort, while very moderate exercise will bring about so free a sudatory action, as to make the bath and towel a necessary as well as a very agreeable termination to a stroll on shore. If the gun has no charm to entice to the banks, there are the glorious remains of antiquity to visit, pore over and wonder at. There are new and beautiful forms of vegetation. The butterfly case or the beetle box are to be filled with curious insects. And if the pencil or pallette have greater attractions, no fear of sudden chill need deter the invalid artist within the reasonable though ample limits already indicated.

There is another point on which I would insist. I am persuaded that this dire disease may be held at bay, even in advanced stages, by abstinence from all alcoholic stimuli, and by a very moderate quantity of food, amounting almost to low diet.

This restriction is far better borne in a climate where the constant use of much animal food is not only not needed, but not desirable.

Do not let me be understood as recommending low diet as the proper one for Egypt; far from it. I have known a good deal of harm resulting from a carni-

vorous, beer-bibbing Britisher, trying to live like a native on rice, lentils, leeks, and cucumbers. My remarks belong to the treatment of *this* disease.

I believe even a far more advanced stage of the disorder will be greatly benefited; and, provided there be no effusion into the great cavities, I should not forbid migration. I have every reason to believe that in my own person I have derived the utmost benefit.

Cerebral Softening.—The last disorder I shall notice is one largely on the increase; I mean the break down of the over-wrought man of business, no matter whether in profession or trade.

So keen is the contest for fame and competence, so fast and killing the pace at which the race for pre-eminence is run, that the envied first is often more than half used up by the time he has reached the winning-post.

There is no account taken of those beaten ones who disappear. *Væ victis!* push on, the pace is too good to look after the man you have left in the brook as you cleared it in *your* stride.

It is to those who are worn down, but not worn out, in this fight, that I would recommend the deck of the dahabeëh. There, lounging lazily under the awning, drawing calm consolation from the soothing tchibouque, let him forget the battle of the gauges or the price of cotton. Or gazing at the exquisite panorama

from the propylons of Philœ, let him remember no more the "things that go up and down in the city."

If pursuit and occupation he must have, let him shoot the sand grouse or quail on the desert's edge, and return home with an appetite unknown at the club, and with something in his jacket-pocket to vary the bill of fare.

Enforced idleness to the active man is intolerable, but here there need be no more idleness than there need be forced work.

You may do, and over do, Egypt (*more Americano*), and make visits to pyramids, ruins, and tombs most laborious.

I am supposing that those to whom I address myself are going with the view of getting all the good they can, not for the purpose of seeing Egypt in the shortest possible time and at the least cost of money.

With two or three congenial companions, with a fair quantity of books, the chess board, backgammon box, and the rubber, the evenings pass quickly, and the days are never too long.

Few men have been worked at higher pressure than I have been, but I never found the days tedious, though I have sometimes found the nights too short.

Diseases Incidental to the Traveller.—This chapter will most properly be brought to a close by a few observations on those disorders which are most likely

to trouble the traveller on his arrival, or during his sojourn.

I shall presume that every invalid brings out his own directions for the management of his own case. Some will put their trust in globules—will bring out a little book which will give 70 symptoms for one disease, and sugar plums for all ailments. *Chacun à son gout*, they will probably end by begging at a neighbour's boat for a dose of Gregory or castor oil.

The disorders most likely to trouble the traveller, valid or invalid, are diarrhœa and dysentery, intermittent and gastric fever, and ophthalmia.

Plague. — *Small-pox.* — Plague has not been in Egypt for fifteen years, but small-pox has raged with epidemic fury, and was active at Cairo last winter.

Cholera.—Cholera has also committed great ravages in the Delta, Cairo, and Alexandria; but not more so than at Messina, Palermo, or Malaga.

It is remarkable, moreover, that these pestilences do not ascend high up the river, while numbers fall victims lower down.

Diarrhœa.—The diarrhœa of the new comer—"la maladie des arrivans"—is commonly due to the too free use of the fresh date, banana, and orange, which he finds in perfection at the time of his arrival; and though at Alexandria the water is accused of contri-

buting to it, yet I believe, *up* the river, that the water is singularly salutary in allaying intestinal irritation. This, if neglected, will run into dysentery, and give rise to a stubborn, protracted illness.

There is no doubt that the temperature and moisture of Alexandria conduces to it, and that some of the attacks partake of the character of a catarrhal flux of the mucous membrane of the bowels. Mild laxatives, abstinence from *all* stimuli (no burnt brandy), fomentations to the body, emollient beverages—such as barley or rice water—rest and quiet, will generally set all to rights in two or three days. After a mild dose of castor oil, or of rhubarb and magnesia, the diarrhœa will yield to a few drops of laudanum in a wine-glass of chalk mixture and 15 grains of aromatic confection; but if these prove inadequate, and the disorder does not abate, seek the aid of European physicians, who are to be found in sufficient number, and in more than sufficient eminence, in Alexandria and Cairo.

Ague.—When up the Nile there is but little fear of this disorder, and intermittent fevers among travellers are very rare on the Nile; but sometimes late in the spring, when large spaces have been laid dry by the now rapidly shrinking river, attacks do come on, and recourse must be had to quinine. A dose of blue pill and rhubarb having been preliminarily administered,

five grains of quinine, once in eight hours for two or three days, will nearly always suffice to cure it.

Gastric Fever.—Where the fever assumes a gastric form, a very low and sparing diet, mustard poultices or hot fomentations to the pit of the stomach, and rest in bed, are the resources of the invalid, but the aid of the physician should be obtained as soon as possible.

Ophthalmia.—I did not see a single case of ophthalmia in an European among the great number that, in all stages, came to me for treatment: nevertheless, I have no doubt of its contagious nature, and that it, in certain seasons, prevails as an epidemic; therefore directions are given for its treatment.

The best remedy is undoubtedly the nitrate of silver, five grains to the ounce of water; three or four drops put into the eye, night and morning, in the outset of the affection, will effectually check it; but I doubt whether the non-medical practitioner will be found bold enough to adopt this practice on his own responsibility. Therefore, let him make a lotion of ten grains of sulphate of zinc (white vitriol) to the ounce of water, and bathe his eyes well with it three or four times a day, taking care that some of the lotion gets *into* the eye.

The first symptoms of ophthalmia are an itching of the eyelids and a feeling as if of sand in them; the

edges of the lids look red, they get puffy, and in the morning hang together. This is the stage in which to use the lotion, and I believe, if applied early enough, it will suffice for its cure.

It is painful to see the number of eyes hopelessly destroyed by this disease. They were brought to me in all stages, and great was the benefit that resulted from the free use of nitrate of silver and blue stone. In the more chronic stages, when the eyelids are granular, the latter is the better application.

That my patients did not like it at the time, I conclude from their grimaces, for their exclamations were unintelligible; but very different was the aspect and manner of the man, who, a few days before, was led blind into the boat, from that of him who now salaamed as he entered, or, pointing to his eyes, grunted out, "Tŷeb, Tŷeb, keteér."

So long as the loss of an eye was a protection against the conscription, parents cared but little about their children becoming blind of one eye from the disease; nay, they even put out the right eye on purpose; but since the Pacha embodied a regiment of monoculous soldiers, and there is no shirking the service, they are become more anxious to get rid of the disease when it occurs.

CHAPTER IV.

THE NILE VOYAGE.

I MIGHT with propriety have closed my observations with the last chapter, for the purely professional portion of it is at an end; but, as I can speak feelingly of the difficulties that beset those who contemplate a voyage to Egypt in making their plans, I offer my contribution of personal experience for their aid. Fortunately, the climate of Egypt is less variable than the advice given by those who have made the journey. No two sets of travellers seem agreed as to what is the best plan of proceeding; one set leave behind what another set insist upon as essential. Where there is so great a discordance, I make no attempt to produce harmony, and I have no doubt that many will condemn the plans I offer.

I will imagine that an anxious parent or guardian has been advised to give his son and daughter (both in dubious health) the advantage of a winter in Egypt, and I propose to go with him, in idea only.

A party of four is a very convenient number, and so a niece or a cousin in good vigorous health, full of fun and expectation of enjoyment, has been wisely added as a companion to the daughter.

It is the 5th of November; Guy Fawkes has suffered his annual *auto-da-fé* in the first fog of the season. I pass over all the preliminary anxieties, the letters of credit, and all those matters which a shilling's worth of Bradshaw has made familiar.

The last adieus have been fondly and fervently uttered, the bell rings at London-bridge Station, the door is slammed to, and away goes the tidal train, leaving London and its fogs behind in a very few minutes.

Let me peep into the numerous boxes, bags, and portmanteaus with which the party are encumbered, and which are to be their anxious care for the next six months.

The ladies have, *inter alia*, got a couple of good dark-coloured silk dresses, besides a *best* one, for the possible and very probable hospitalities at Malta, Alexandria, or Cairo; a couple of mohair dresses, from which the dust is easily shaken—dust being the great enemy of their journey; there are no linen or washing dresses, unless the ladies wish either to serve an arduous apprenticeship to laundry-work, or else to appear in limp garments fresh from the linen-bag. This is on the assumption that no maid is taken, usually the most helpless article imaginable.

There are fine flannel or merino under-garments, fine coloured woollen or spun silk stockings, for without these woollens next the skin no invalid should travel. I particularly recommend a flannel belt for the body. To consumptive patients, who are all pre-

disposed to intestinal irritation, it is of the utmost value.

There is the bonnet-box, destined to be replenished hereafter in the Rue de la Paix, while on the head is a round *white* straw hat, with an adequate but not too wide brim, which in a week or two will be covered with ample folds of white muslin. Some ladies may fancy Diana Vernons—nay, even go into Spanish or Mandarins—but those who have due regard to their complexions, as well as to headaches, will take care to have brim enough to protect the one, and crown enough to avoid the other.

While on this subject, I beg the ladies to accept a tribute to the ornamental as well as useful. Sunburns and freckles are inevitable under an Egyptian or Nubian sky, and the best application to prevent or to get rid of them is the old-fashioned Friar's Balsam, or compound tincture of benzoin. This is the real basis of the *Eau de Rose et Lys*, the cream of roses, and other fragrant washes, that are vended at much money in the seductive shops of Bond-street or the Boulevards; some there are that are not so innocent.

I lately saw the name of a justly eminent dermatologist conspicuously displayed on a hair lotion. Will the only result of this little book be to descend to the next generation on the label of a face wash?

A few drops (10 or 20) in a saucer of water, applied freely to the face on coming in from a walk or ride, will be found the best preservative. Three or four

ounces, in a cased bottle, will be enough for the whole journey, and can be had anywhere.

Stout—really stout—boots are essential. Some like brown leather—for blacking is bad, and the blackers worse; but this is an affair of taste. Many a hard stone and sharp fragment will be walked on or climbed over, before they will again tread asphalte or York flag.

The collars and cuffs, and such-like feminine tires, should be simple and easily got up. Clear-starching in the cabin, with the thermometer at 82 degrees, is not really pleasant, though highly edifying.

The gentlemen will have their coloured flannel or spun silk shirts, tweed or melton suits of moderate thickness and medium colours, with plenty of pocket room; they will also have a dress suit for presentations or special visits.

Knickerbockers are capital Nile wear, and very nearly resemble the *Nizam* garment which in the East clothes the same part of the nether man. The shoes and boots should be stout and brown, and of *English* make—neither French nor Cairene work withstands the wear and tear.

Then there will be the gun cases, a short Enfield or a Lancaster rifle, for the pelicans, cranes, or chance crocodiles; a revolver, with belt and pouch. The events of Syria this year make this more than ever a requisite of travel.

In no country does personal appearance go further than in the East; and though it is absurd to see a

man got up extensively in Parisian or St. James's-street fashion, yet a shabby coat and slovenly appearance has a decidedly mischievous effect. Unless a man is master of Arabic to a tolerable extent, let him not assume the Mussulman garb.

There have been anxious inquiries about the medicine chest, and my companions have probably been advised to invest in a neat square green-velvet-lined brass-bound compendium of Magnesia, Blue Pill, Castor Oil, and Company. I did so: *don't* go and do likewise. In the Appendix I will give a list of what ought to be taken, and what will probably suffice.

We have run down the South-Eastern line, crossed more or less successfully the troubled strip of water that separates us from the Continent. I will not delay them on their road, but take them across France as quickly as possible, to avoid the bitter *vent bise* which will surely meet them in Provence, and set them down in the gay city of Marseilles. Here I advise them to stay as brief a time as possible, for I know no city of similar size and pretensions where the hotels are worse than at Marseilles.

Let the arrival be so timed as to remain only long enough to get their permission to embark,* without which formality they will not be allowed to go on board the "Vectis" or "Valetta," or, *longo intervallo*, the "Mersey," or other vessels of the Messageries

* Since this was written, the wisdom of the Emperor of the French has prevailed over the fears of the police and the greediness of officials, and *permits* are abolished. It is perhaps premature to say how it works.

Impériales, one of which is in three days to land them at Malta.

At Malta we will stay four, five, or seven days, as the case may be; for there is time enough before us. There is very much to interest and amuse, and it is a good break in what might be too long a sea voyage.

The weekly communication between Malta and Alexandria, either by the P. and O. or the M. I., leaves no difficulty. We put our names down for the first choice of the vacant berths, at the offices of the Companies, and at the end of a week, pleasantly and quickly spent, we find ourselves once more on board —I hope the "Pera" or "Ceylon"—and ere 60 hours, the low shores of Africa heave in sight. With the early dawn, the many windmills that garnish the shore break on the sight; and soon passing the rotting hulks of the dismantled fleet of Egypt, and the trim white steam-yachts of the Viceroy, the anchor splashes in the turbid harbour of Old Alexandria.

Now comes the crowd of boats eager to take us and our effects ashore, and here we learn the first lesson of Eastern travel—and the more thoroughly we learn it, the less it will cost hereafter—viz., never to commit yourselves to an outlay, even of a piastre, without a previous bargain. We look out for the least villainous face in the crowd, with a fair amount of English on his tongue (which is easily found)—we offer him a dollar to take our party of four, with all the baggage, ashore to the Custom-house, including the landing of the things. Any amount will be asked, and no satis-

faction will be expressed whatever is given. It is the only comfort, you have saved your dollars.

The Custom-house formalities are expressed in one word, "Baksheesh"—that word which is to haunt us up and down, in and out, on pyramids and in tombs.

We have picked up the commissioner of the "Hotel Abbatt," who takes all further trouble off our hands; we are put into a dirty ricketty coach (for which we make a bargain), or we jump on and take our first ride on a real Egyptian donkey (also bargained for).

To Abbatt's Hotel let us go, and, if we are as well treated now as we were on both our previous sojournings there, we shall make acquaintance with the best hotel we shall enter, while we are in Egypt.

Now comes a most important consideration; here arises the great and grave dragoman question, which may need to be decided.

While at Malta, we have been accosted by very numerous respectable-looking, smooth-tongued, civil-mannered fellows, offering their services as dragomen. Their cards have been sent up to our rooms; the highest-flavoured testimonials and characters have been put into our hands. But there are many objections to a Maltese dragoman.

1st. They have, for the most part, a very inadequate knowledge of Arabic. They speak it, it is true (for Maltese is an Arabic dialect), but not in a way to command the respect and obedience of the Arab sailors, on which so much future comfort depends.

2nd. The Maltese, as a class, have their names spelt with three letters.

3rd. You will have to pay their passage out, and back to Malta, and receive no equivalent benefit from them on the voyage.

No man who has any regard for his own peace of mind, or for the maintenance of a friendship, will recommend a dragoman. They are the least dependable of the race of servants; what they are to one man or party they are not to another; and though I might in full confidence recommend Mustapha Rhubba Dhubb, or Alie Kossim Büzzar, yet he is just as likely to turn out a cheat, idle and insolent, as not.

There are several good dragomen at Alexandria, no doubt; I took one from thence last year, but I will never do so again.

No one need wish for a better dragoman on the Nile, for the greater part of the voyage, than my man, and to this I testified, "*litera scripta manet;*" and yet when I renewed my engagement with him, and took him into Syria, he turned out as bad a fellow as ever people were plagued with. He bullied, insulted, worried, and delayed me. I had him before the consuls of Beyrout, Jerusalem, and Damascus, to enforce my contract; and, finally, he was fined 1,500 piastres by Consul-General Moore, and condemned to an apology at the hotel table, before all the guests, dragomen, and waiters at Beyrout.

If a dragoman is hired at Alexandria, let every thing be put into writing, and let the contract be ratified before the consul. Let no fear of loss of time, no dislike of trouble, no idea that it is fussy or unnecessary, tempt you, O governor, to forego this.

In the Appendix I will give a formula for a contract.

It will be convenient to take a dragoman by the day while remaining in Alexandria, where, unless you intend to hire a boat, you will not stay more than a day or two.

Carriage hire is extravagant at Alexandria, and if the steamer be full, as it always is in November and December, 10 francs will be demanded for an hour's ride, and 25 for a day's use of a dirty, ricketty old trap.

If the strength of all parties permit, hire donkeys; they are good, though not so good as their brethren at Cairo; but on one of them you may penetrate the bazaars (a constant source of amusement), visit Pompey's Pillar, Cleopatra's Needle, and all within the compass of an easy day's work. N.B.—A bargain must be made for donkeys—from 1*s.* 6*d.* to 2*s.* is ample for a day's hire. On no account pay till your day is done.

The question of hiring a Nile boat will also arise here. I took a boat from Alexandria—one of the largest on the river. I hired it of an Englishman, and

thought myself fortunate. I think very differently now, and I won't repeat the act.

If a dahabeëh is hired from Alexandria, insist that your contract dates from the arrival of the craft at Cairo, and ends when it is quitted at the same place; otherwise, all kinds of tricks and delays will be practised. Delay in getting the boat off, or from want of wind, or at the locks; in fact, every dodge—European, Asiatic, African, and American—to spin out the time. At this sort of work the letters-out of boats are very expert—the Europeans not a whit more scrupulous than the natives.

There is also another objection to hiring a boat at Alexandria, viz., that it is requisite to wait and see all the things put on board, to verify the inventory, so as to see that you really get for your voyage what is shown you when the boat is inspected prior to engaging it.

Smart rugs, easy chairs, luxurious cushions, by which you have been beguiled with visions of comfort and repose, are found, when the boat arrives at Boulack, not to be on board. The reis will swear that they never were there, that you never saw them on *that* boat, and appeals to an inventory, which you have not checked and verified, as his proof against you.

At Cairo the choice is larger—the boats are better, and better found—though I do not think the captains and crews are so good as those of Alexandria. In price there is little to choose between the two places.

If you do hire a boat at Alexandria, your heavy baggage is put on board, your beer and wine shipped, and here also you lay in, at a cheaper rate, the wood and charcoal needed for the voyage; and thus something is saved in railway charges.

At Alexandria you will do well to purchase your wines. Excellent Marsala—the best wine for a Nile trip—is to be had from £6 to £7 per quarter cask: but more of this hereafter.

We have seen all that Alexandria has to show—from the pillar of Pompey to the head of St. Mark; but we have not yet seen an Oriental city. True, we have seen files of camels, groups of squalid Arabs, foul huts, and mangy dogs; we have heard the muezzin call the faithful to prayer from the gallery of the minaret; we have even put off the fatigues and uncleanness of the voyage in the luxury of a Turkish bath; still we do not quite feel that we are in the East. The English church, the English names, French bazaars, and Catholic bells, more than half Europeanise Alexandria.

Next morning, at eight, sees us all, with boxes and bags, at the railway station, aided by our temporary dragoman, or *lacquey de place*. We have got our luggage tickets, have been duly cheated in the exchanges at the pay office, unless we have carefully made out the amounts required beforehand, and we find ourselves in a carriage more or less dirty (but generally more); but whether we get off for the next

hour or so depends on something quite Eastern. The Viceroy's hareem may be going up, or the fat Pacha's fat brothers, or his interesting son; and for all, or any of these, both time and rail are made to wait.

However, we are off at last, running up by the side of Lake Mareotis, startling flights of strange aquatic birds, heavy buzzards, and foul vultures, crossing tracts of very fertile country, most unpicturesque, but withal so unlike what we have seen before, that for the first time or two that it is travelled it is neither uninteresting nor ugly.

At length, on the right side of the line, about three o'clock, the mighty pyramids first loom in sight. The pyramids! what a host of thoughts crowd on the mind! But no matter, we shall see them often enough before we turn our backs on them finally, and my business is to get you all to Cairo—and here, at last, we are.

By this time the head of our party has acquired some knowledge how to act; he gets his charge into a carriage, with their portables, and sets off for his hotel as quick as he can, where, as a prudent man, he has secured rooms, by *writing* from Alexandria. I say writing, for trust not the telegraph.

Par parenthèse, let me name a few benefits that arise from sojourning a day or two at Alexandria.

The crowd of passengers booked for China, Japan, Australia, and India, that have come with us from Malta, are forwarded immediately to Cairo, and have

passed on to Suez; our luggage is not forwarded with theirs, and our sherry and claret (from Morel's direct) has not been sent on to Bombay like that of a former fellow-voyager. The corresponding flood from Suez to join the same steamer on return to England has come down to Alexandria, and neither rail nor hotels are so inconveniently overcrowded, as on "transit days." With invalids, it is a great point to get a choice of rooms—one with a south aspect, or with a fire-place in it—and there are but few of these in the Cairene hotels.

The receipt for the luggage has been handed over to a black commissioner, or, more wisely, one of us has gone down, mounted on a donkey with him, to clear it. The impedimenta have been put on a bullock cart (arabéeh), and safely housed. We are in Cairo.

It is no part of my plan to be showman of Cairo to my party, and to describe the tombs of the Caliphs or the mosques—Are not all these written in the book of Murray? I have still to get a boat, a dragoman, and a cook, to put them on board, afloat, and away up the Nile.

There are three ways of arranging for this—

1st. To contract with a dragoman for boat, living, and every possible thing connected with the voyage up and down.

2nd. To hire your own boat, dragoman, and servants; to find all your own stores and provisions, and make your own arrangements.

3rd. To hire your own boat, but to contract with the dragoman to furnish everything—from food and cook down to donkeys.

The first is by far the least trouble, the second the least expense, the third combines the advantages of both, and is the one I pursued.

I hired my boat, dragoman, and cook, at Alexandria; my soffragee, or subbee, or waiter, at Cairo. I brought out from England many stores, and expended much time and trouble, with a fearful amount of temper, in procuring the stores for the voyage; and then, at the last moment, when going on board, I found the worry so great that it affected my health, and I contracted with my dragoman to take all my stores off my hands at the prices they cost me at Cairo, to pay cook, waiter, and every expense, including horses, donkeys, and baksheesh to the crew—the hire of the boat excepted.

I think this is the best plan, on the whole; but if you get a dragoman in whom you can fairly trust, and make a comprehensive contract with him, it will save a large amount of trouble, both at the beginning, in the middle, and especially at the end, of the voyage.

Well, we have got a dragoman at last; we have talked to Aliis, Mohammeds, Hassans, and Aboos, to Demetris and Giovannis without number, and, by way of trying our man, we mount the best donkeys we can find ("Capt. Snooks" and "Billy Thompson" were two

renowned beasts in 1859-60), and off we canter to Boulack, to look at the boats lying there for hire.

We want four sleeping berths and a saloon. There ought to be a bath-room in the boat. We look over rows of dahabeëhs that line the wharf. We inspect them minutely, ask their prices, and, of course, fix on none. An immediate decision in a purchase, so common to an Englishman, is the weakest commercial conduct possible in the East.

The prices vary, of course, with the demand and season of the year. Last season the prices were kept up beyond all reason, under the idea that there would be a great demand, whereas not more than two-thirds of the number that ascended to Thebes in 1858-59 went up in 1859-60.

Prices varied from £75 to £40 per month, and, later in the season, fell to a far lower figure.

I paid £65; but the boats for which £75 were paid were far more than the £10 per month superior in furniture, accommodation, and canteen.

In the price of the boat should be included an ample canteen and supply of cooking utensils.

The best large boats I saw were those of the late El Hamil Pacha, under the control of Messrs. Oppenheim; those also of the intelligent, obliging Superintendent of the Steam Dockyard, Hassannen Effendi, are good.

When a boat is determined on, let the contract be drawn on the model of that furnished in the Appendix, varying, of course, according to the wants of each hirer.

This important point settled, we must now get on board as quickly as possible, for I strongly advise four or five days' residence in the boat before starting, as the only way in which the thousand and one little things that are needed for comfort can be known. We carefully go over every item in the inventory, put aside every cracked plate, glass, or cup, every worn or ragged towel, napkin, or cloth, every ricketty chair and stool, and refuse them all and absolutely; or else, when we come to hand over the boat and its contents to the owners, we shall be charged with all these as well as our own breakages, and have to fight it out before the Consul, just as I had with the British owner of my boat. If we contract with a dragoman for boat and everything, all these matters belong to him to pay for, and it may be safely left in his hands.

In the Appendix there is also a form for a contract on this basis.

It may be objected that we are at our dragoman's disposal and mercy, and the longer he can keep us on the voyage the better for him; but I start with the assumption that we are going up to the second cataract, and this cannot be done on the average in less than three months, so as to see all we want and to see it well: moreover, we do not wish to be back in Cairo till the end of March.

By inserting a clause, making us arbiters of our stoppings and startings, we shall be as independent of

the dragoman as we can be in a country where he must be our mouthpiece as well as purveyor.

If any of us were masters of Arabic, like an accomplished and esteemed friend and fellow-traveller, then, indeed, we should not need a dragoman, we only want a subbee to do the service of the cabin, and a cook: all the rest may be done by the Arab scholar, if he chooses to take the trouble.

The question is one of expense: I paid £65 per month for my boat, £8 for dragoman, £4. 10*s.* for cook, but I merged all this in a contract with my dragoman, as will be seen by the Appendix, for the sum of £2. 5*s.* per diem, boat excluded.

I know several contracts were made for 18*s.* to 22*s.* per head per diem, including boat and everything, even wine and beer, last year, and the parties expressed themselves perfectly satisfied with the fulfilment of it; but I am bound to say that what I saw of the 18*s.* boat, and the style in which it was done, would not have tempted me to try it.

We were a party of four, two ladies and two gentlemen. We had a reis, pilot and 14 sailors, dragoman, cook and soffragee, and a subbee for the crew; and the entire cost of everything, beer, wine, and spirits included, for 13 weeks, was £420.

I am quite sure that after my experience of one voyage, I could make a deduction of from 12 to 15 per cent. on this; but one buys Eastern experience *au poid d'or*.

On the presumption that the head of the family will furnish his own stores as I did, I have given not the quantities I laid in, but what I consumed, which will be a guide as to how much to get.

While the dragoman is buying stores, while we are trying what sort of an artist our cook is, and finding out the weak points in the structure and furniture of the boat, we are moored over against Boulack, as far as possible out of the noise and bustle of the crowded wharves; the new comers are donkeying to the Citadel and the Mosque of Mohammed Ali, to Shoobra and its gardens, to Rhoda and the Nilometer, to Heliopolis and the Petrified Forest, if, indeed, they are strong enough; but beware, I pray you, of overtaxing your strength, very much mischief is done by this. You have come here on health-seeking errands. Something, too, must be kept for the ten or twelve days you will have on your hands when you come back to Cairo, when I hope the pale cheek will be brown and ruddy, when the feeble ones will be strong, when the cough has departed, the short breath disappeared, when, in fact, Egypt and its climate shall have answered its purpose.

At last we have settled all our arrangements—the cocks and hens, turkeys and pigeons, are in the coops making a great gobbling and cackling; a sheep is eating cinqfoin in the san'dal; half a bullock is hanging, wrapped in a white sheet, from the boom; the blue and white san'gak flies at the mainyard (or it may be the

burgee of the R. Y. C.), while the Union Jack flutters at the mizen. The great latteen sail is shaken out, a pleasant breeze from the north fills it, and we cast out into the stream. The crimson-jacketted Arnout that dragomans yon Belgian boat salutes us with a long Albanian's musket; brother Jonathan, who is only going for a fast run to Thebes and back, gives us a volley from six shooters, and we are fairly off on our voyage to woo the goddess Hygeia. May she be propitious! Here I leave my friends; they will not want me any more at present; and they will probably reach Thebes at Christmas, in time to cut a plum pudding and drink to all friends at home on that day.

They have taken a cursory survey of the grand and sublime at Koorneh, Medeénet Háboo, and Karnak; they have visited Esne, ascended the first cataract, revelled in the bright loveliness of Philœ, sunned themselves in Nubia, wondered with awe at the rock temples of Aboo Simbel, graved their names on the rock at Wadée Halfeh (I hope the only place where they have perpetrated that snobism), and now they are once more at Thebes.

Here they had better form their plans for the time that still remains, and that must elapse before it is safe and wise for them to return to England.

It is neither wise nor safe to remain in Upper Egypt longer than the end of March; even earlier than that, the hot forerunners of the khamsén begin to be felt.

The return to Cairo should not be later than the first week of April; and then comes the question, what to do with the six or eight weeks before our tardy springs melt, when indeed they do melt, into summer. I still think a hotel in Cairo an undesirable residence, and that, so long as they remain there, they had better live on board; but they will make but a brief stay now in Egypt.

A few days may be usefully and pleasantly spent at Suez; where the air is very good, and the locality, for a short time, interesting.

What next? "Go to Syria," says one; "spend six weeks in Palestine; see Jerusalem, Damascus, Baalbec, and Palmyra." By all means, if you are strong and healthy; but for the invalid, newly recovered, I say, Do no such thing.

I went with two of my party through the whole country from Beyrout down the coast, by Tyre, Sidon, and Carmel, to Jaffa and Jerusalem, thence to Damascus, Baalbec, and Lebanon, back to Beyrout.

So far as association and novelty, and, to some extent, scenery, went, it was a delightful six weeks; but in a health-restoring point of view, it was a mistake. We did not travel fast—quite the contrary; we took every precaution, had every accommodation that could be procured—but it did not improve the health of the majority.

The fatigue is too severe—the number of hours that

must, per force, be passed on horseback between station and station too great.

Then the nights and early mornings are cold, and linen alone separates you from the very heavy dews; while the heat of the noon-day sun, especially towards the latter part of the journey, is oppressive and trying.

At the time we made our journey, several others did the same; I think we mustered 16 masters and mistresses, and at least 10 of the party arrived at the conclusion that they had taken no good in Syria.

My advice would be, to take the Messageries Impériales at Alexandria, and stop at Beyrout till the arrival of the next boat, which will be about 10 days. The hotel "Belle Vue," on the sea-shore, is in a charming position—the air is temperate and bracing—and the excursions round Beyrout and into Lebanon, or along the coast, delightful.

From Beyrout, ship will again be taken direct for Cyprus, Rhodes, and Smyrna, avoiding the *détour* by Iskanderoon and Latakia as a feverish district—sail through the glorious Egean sea—greet the isles all pregnant with the poetry that will last as long as mankind—mark the course of the great Apostle of the Gentiles—and disembark at Constantinople. There, ten or twelve days, with two or three passed at Therapia and Buyukdère, will be delightfully and usefully spent.

Once more on board, and Athens is the destination; where, awaiting the next steamer, all the glories of the Acropolis and the beautiful climate of Greece may be enjoyed; and then Messina, the kingdom of Italy, and home.

To dilate on this route would be a thrice-told tale; and I have brought my party to the first week in June, by which time the weather ought to be warm enough, but I venture to predict that they will cast many a long lingering thought on the genial warmth, the blue skies, the soothing breezes, and charming *dolce far niente* of old Egypt.

It is difficult to take leave of this intensely interesting country without dwelling painfully on its abject condition—its past so grand, its present so mean, its future so dark! While the Nile continues its still mysterious but ever constant rise and fall, the capabilities of Egypt are unchanged; but so long as man neglects his duties, they are comparatively unavailable.

The fraudulent system of baksheesh, beginning at the very top, descends to the dregs of society, and pervades every transaction. Let no man venture his money in the cultivation of Egyptian soil, under the idea that energy, enterprise, skill, and capital will bring their ordinary reward: he may grow great crops of corn and cotton, such as to rejoice his bucolic heart, but how much of this he will carry to market

is another matter altogether. The percentage of robbery he will have to bear, beginning with the labourer's pilfering and ending with the pacha's extortion, forms a huge item of deduction.

There is no secrecy about this. The present ruler of Egypt knows it well, and is himself plundered on a gigantic scale—sometimes in French looking-glasses, and sometimes in American steam-frigates. It is not, indeed, that he is deficient in a certain spasmodic shrewdness and intelligence, but he is both restless and unstable; sunk, too, in debasing vices, he alternately lavishes on worthless objects or hoards for a son who is not his successor.

It would be well, too, for the Western powers if their conduct towards the East were more dignified, and free from interested and ambitious motives; but neither Englishman nor Frenchman, Russian nor Austrian, dare lay bare the secret springs of their dealings.

The engrossing theme of the Eastern question I dare not trust myself further with; and yet, to every thoughtful Englishman, and above all, to those who have once visited this fertile, important, but misgoverned land, it is no small question who shall be secured as future heir of Egypt.

Observations taken on the Nile for Eight Days in December, 1859.
Latitude, from 29° 8 *to* 27° 13′; *longitude*, 31° *to* 31° 5′.

Day of Month.	9 A.M., Local Time.							1 P.M.		Sunset.					
	Reading of				Wind.	Cloud.	Ozone.	Reading of		Reading of				Wind.	Cloud.
	Barometer.	Attached Thermometer.	Dry Bulb Thermometer.	Wet Bulb Thermometer.	Direction.	Amount, 0—10.	Moffat.	Maximum Thermometer.	Minimum Thermometer.	Barometer.	Attached Thermometer.	Dry Bulb Thermometer.	Wet Bulb Thermometer.	Direction.	Amount, 0—10.
24	29·95	63	63	57	N.	0—2		77	43	29·90	65	62	57	N.N.W.	0—3
25	29·90	54	54	52	S.S.E.	0—4		76½	42	29·85	67	67	59	N.N.W.	0—5
26	29·85	58	58	54	N.N.W.	0—4		75½	48	29·85	67	67	63	N.	0—1
27	29·95	62	60	55	S.	0—0		74	49	29·75	63	75	55	N.N.E.	0—6
28	29·85	56	56	51	S.S.E.	0—1	5	75	42	29·65	64	64	57	S.	0—1
29	29·75	57	56	53	N.N.W.	0—0	4	74½	43	29·60	64	64½	56	N.N.W.	0—0
30	29·85	54	54	51	E.N.E.	0—0	5	71	39	29·70	64	64	56	N.N.E.	0—0
31	29·80	52	52	47	N.N.W.	0—0	3	66	41	29·75	61	61	57	N.E.	0—0
Means Sums	238·90	456	453	420		0—11	17	589½	347	238·05	515	524½	460		0—16
Means	29·76125	57·025	56·065	52·040		0·1375	2·01	73·7875	43·395	29·75005	64·378	69·625	57·805		0·2

Observations taken on the Nile for the Month of January, 1860.
Latitude from 27° 13′ *to* 22° 10′; *longitude,* 31° 12′ *to* 31° 5′.

January.	9 A.M. Local Time.							1 P.M.		Sunset.					
	Reading of				Wind.	Cloud.	Ozone.	Reading of		Reading of				Wind.	Cloud.
	Barometer.	Attached Thermometer.	Dry Bulb Thermometer.	Wet Bulb Thermometer.	Direction.	Amount, 0—10.	Moffat's Papers.	Maximum Thermometer.	Minimum Thermometer.	Barometer.	Attached Thermometer.	Dry Bulb Thermometer.	Wet Bulb Thermometer.	Direction.	Amount, 0—10.
1	29·75	54	54	49	N.N.W.	0—0	3	67	38	29·75	60	60	53	N.	0—3
2	29·90	55	54	48	E.	0—2	5	65	39	29·60	58	59	53	W.	0—9
3	29·90	53	53	48	S.E.	0—1	6	65	42	29·85	58	59	54	N.	0—3
4	29·95	59	59	54	N.N.W.	0—0	3	73	45	29·75	64	63	56	N.N.W.	0—0
5	29·95	55	56	52	W.S.W.	0—0	3	76	44	29·75	64	64	57	W.S.W.	0—0
6	29·75	58	57	53	S.S.E.	0—0	2	75	39	29·80	66	66	57	S.S.E.	0—1
7	29·85	62	62	54	N.E.	0—1	1	77	40	29·80	69	69	60	E.N.E.	0—0
8	29·70	58	58	50	N.E.	0—0	1	75	39	29·60	70	69	60	E.N.E.	0—1
9	29·75	58	57	51	N.E.	0—1	1	82	43	29·60	75	75	67	W.S.W.	0—0
10	29·80	62	63	55	S.S.E.	0—1	1	70	45	29·70	58	58	50	N.N.W.	0—8
11	29·85	60	59	54	N.E.	0—1	1	69	44	29·80	63	62	58	N.N.W.	0—2
12	29·80	56	56	51	N.N.W.	0—0	3	75	41	29·60	66	65	55	N.N.W.	0—0
13	29·75	55	56	49	N.N.E.	0—1	3	76	43	29·50	68	68	56	N.	0—1
14	29·60	59	58	52	N.W.	0—2	2	79	43	29·50	77	72	62	N.W.	0—2
15	29·60	55	56	48	N.N.W.	0—0	2	66	44	29·50	62	62	52	N.N.W.	0—0
16	29·60	56	57	52	N.E.	0—3	1	70	43	29·60	60	60	55	N.E.	0—6
17	29·60	56	56	51	N.E.	0—1	2	77	51	29·60	61	62	55	N.E.	0—1
18	29·60	58	57	50	N.E.	0—1	1	73	49	29·60	60	61	54	N.E.	0—1
19	29·70	57	58	51	N.E.	0—1	2	67	44	29·70	62	63	49	N.	0—1
20	29·70	58	59	49	N.	0—1	1	73	45	29·55	58	59	49	N.	0—0
21	29·66	57	58	50	N.	0—3	2	73	45	29·40	65	65	53	N.E.	0—4
22	29·45	63	63	58	N.N.W.	0—4	4	76	45	29·45	72	72	57	N.	0—3
23	29·50	63	64	57	N.	0—6	1	75	51	29·50	70	71	56	N.	0—2
24	29·45	63	64	54	N.	0—0	1	75	50	29·47	75	72	55	N.E.	0—1
25	29·55	58	60	50	E.N.E.	0—0	1	78	50	29·40	67	68	52	N.	0—0
26	29·50	59	60	53	N.W.	0—0	1	82	51	29·40	73	74	53	E.N.E.	0—2
27	29·40	60	61	51	N.N.W.	0—2	2	75	48	29·60	72	73	52	N.W.	0—7
28	29·55	61	62	50	N.N.W.	0—1	2	71	46	29·40	68	69	53	N.W.	0—1
29	29·50	61	62	54	N.N.E.	0—3	2	76	45	29·45	64	65	54	N.	0—7
30	29·50	60	62	54	N.N.E.	0—0	2	75	51	29·40	64	65	55	N.	0—1
31	29·50	55	56	48	N.	0—2	2	82	42	29·45	63	64	50	N.	0—3
Sums	919·60	1,804	1,817	1,600		0—38	64	2,288	1,385	901·82	2,032	2,024	1,702		0—70
Means	29·89	58·19	58·60	51·613		0·1226	2·644	72·84	44·6	29·90	67·162	66·6	56·2		2·26

Observations taken on the Nile for the month of February, 1860.
Latitude from 25° 55′ *to* 31° 56′; *longitude,* 31° 12′ *to* 31° 5′.

February.	9 A.M. Local Time.							1 P.M.		Sunset.					
	Reading of				Wind.	Cloud.	Ozone.	Reading of		Reading of				Wind.	Cloud.
	Barometer.	Attached Thermometer.	Dry Bulb Thermometer.	Wet Bulb Thermometer.	Direction.	Amount, 0—10.	Moffat's Papers.	Maximum Thermometer.	Minimum Thermometer.	Barometer.	Attached Thermometer.	Dry Bulb Thermometer.	Wet Bulb Thermometer.	Direction.	Amount, 0—10.
1	29·50	60	61	50	N.	0— 2	2	73	44	29·45	62	63	53	N.	0— 5
2	29·55	61	62	50	N.	0— 5	1	74	43	29·40	63	64	53	N.	0— 3
3	29·50	62	62	51	N.N.E.	0— 9	3	83	47	29·45	72	73	55	N.W.	0— 7
4	29·40	64	65	54	N.N.E.	0— 0	2	85	49	29·45	67	68	55	N.	0— 1
5	29·45	66	67	55	N.W.	0— 1	3	80	44	29·40	65	66	54	N.	0— 5
6	29·40	57	58	50	N.	0— 9	3	85	42	29·20	64	65	53	N.W.	0— 7
7	29·10	60	61	51	W.	0— 9	1	67	50	29·15	62	63	50	W.	0— 9
8	29·35	57	58	50	W.	0— 0	4	66	48	29·20	60	61	49	S.W.	0— 0
9	29·40	53	53	44	W.	0— 0	4	68	50	29·40	55	56	46	W.	0— 1
10	29·60	52	52	47	W.S.W.	0— 0	3	64	40	29·40	55	56	46	W.	0— 1
11	29·55	53	54	48	W.S.W.	0— 0	2	75	38	29·50	61	62	55	W.	0— 0
12	29·50	55	56	44	N.N.E.	0—10	3	77	43	29·45	66	67	53	N.E.	0— 5
13	29·45	53	54	46	E.N.E.	0— 0	1	80	44	29·40	65	66	55	N.	0— 1
14	29·45	57	58	55	N.E.	0— 0	3	81	43	29·45	63	64	56	N.	0— 0
15	29·60	63	64	56	E.	0— 0	1	84	42	29·65	75	76	59	N.E.	0— 0
16	29·50	66	67	57	E.	0— 0	1	86	50	29·45	76	77	58	S.S.E.	0— 0
17	29·45	67	68	56	S.	0— 0	1	88	50	29·45	78	79	66	S.S.E.	0— 0
18	29·35	64	65	56	S.	0— 0	1	90	55	29·25	79	80	62	N.E.	0— 1
19	29·40	63	64	56	N.E.	0— 0	1	66	40	29·40	62	63	58	N.W.	0— 0
20	29·60	54	55	49	N.W.	0— 0	7	70	40	29·50	56	57	44	W.N.W.	0— 0
21	29·55	53	54	46	N.W.	0— 0	3	74	50	29·35	66	68	56	S.	0— 4
22	29·55	55	57	49	N.W.	0— 7	3	77	45	29·55	64	65	51	N.W.	0— 0
23	29·70	54	58	45	N.	0— 2	2	74	50	29·65	65	66	54	N.N.W.	0— 5
24	29·70	53	54	50	W.	0— 0	2	79	40	29·70	63	64	50	N.	0— 0
25	29·80	54	55	48	W.	0— 0	2	80	40	29·70	65	66	58	N.	0— 6
26	29·65	57	58	50	W.	0— 9	2	74	49	29·60	64	65	53	N.W.	0— 8
27	29·75	53	54	48	N.N.W.	0— 9	2	65	48	29·60	56	57	48	N.W.	0— 5
28	29·70	51	54	44	E.	0— 2	2	65	40	29·60	50	51	49	S.S.E.	0— 1
29	29·40	55	56	49	S.S.W.	0— 9	9	66	49	29·50	63	64	51	N.W.	0—10
Means Sums	845·90	1,672	1,699	1,454		0—83	74	2,196	1,313	854·25	1,862	1,902	1,550		0—85
	29·51	57·30	58·6	50·110		2·9	2·55	75·7	45·2	29·45	64·2	65·5	53·4		2·99

Observations taken on the Nile for the month of March, 1860.
Latitude, 29° 8′, *longitude*, 31° 12′.

March.	9 A.M. Local Time.							1 P.M.		Sunset.					
	Reading of				Wind.	Cloud.	Ozone.	Reading of		Reading of				Wind.	Cloud.
	Barometer.	Attached Thermometer.	Dry Bulb Thermometer.	Wet Bulb Thermometer.	Direction.	Amount, 0—10.	Moffat's Papers.	Maximum Thermometer.	Minimum Thermometer.	Barometer.	Attached Thermometer.	Dry Bulb Thermometer.	Wet Bulb Thermometer.	Direction.	Amount, 0—10.
1	29·70	63	64	58	N.N.W.	0—5	7	72	51	29·70	65	66	55	N.	0—7
2	29·80	56	57	53	E.S.E.	0—3	7	74	45	29·75	67	68	60	N.W.	0—8
3	29·90	57	58	53	W.	0—0	6	67	41	29·80	60	61	53	N.	0—1
4	29·80	55	56	52	N.E.	0—4	5	63	44	29·80	58	59	53	N.E.	0—2
5	29·80	55	56	49	E.N.E.	0—0	2	67	43	29·80	63	64	54	N.N.E.	0—7
6	29·55	55	56	51	N.	0—1	6	78	36	29·75	62	63	58	N.N.W.	0—3
7	29·75	59	66	52	N.	0—2	4	79	48	29·60	63	64	56	N.N.E.	0—6
8	29·60	58	59	51	S.E.	0—3	4	78	44	29·60	62	63	57	E.N.E.	0—5
Sums	237·90	461	472	419		0—18	41	578	352	237·80	500	508	446		0—39
Means	29·757	57	59	52·3		·2·2	4·6	72·3	44	29·725	62	64·4	55·7		4·8

Summary of the Observations

No. 1.	Local Time 9 A.M.				1 P.M.		
	Aneroid Barometer.				Mean Temperature, or the Arithmetical Mean of Maximum and Minimum Thermometers		
Month.	Mean Atmospheric Pressure.	Greatest on Days of the Month.	Least on Days of the Month.	Range of Number of Days.	Mean.	Highest on Days of the Month.	Lowest on Days of the Month.
1859.	Inches.	Inches.	Inches.	Inches.	Deg.	Deg.	Deg.
Dec. 24th to 31st inclusive.	29·724	24th = 29·950	29th = 29·600	8 = ·350	58·5	28th = 75	30th = 39
1860. January.	29·540	4th, 5th = 29·950	22nd, 26th, 27th, 29th, 30th = 29·400	31 = ·550	59·2	9th, 25th, 31st = 82	1st = 38
February	29·398	25th = 29·800	7th = 29·100	29 = ·700	60·4	18th = 90	10th, 19th, 20th, 24th, 25th = 40
March 1st to 8th inclusive.	29·649	3rd = 29·900	6th = 29·550	8 = ·350	58·1	7th = 79	3rd = 49

No. 2.	Aneroid.	Mean Temperature.	Dry Bulb.	Wet Bulb.	No. 3.	Dew Point.	Elastic Force of Vapour.
						Degrees.	Inches.
1859, December	29·724	58·5	61·0	55·0	1859, December, 8 days	49·8	·358
1860, January	29·549	59·2	62·2	53·2	1860, January	45·5	·303
February	29·398	60·4	62·0	51·7	February	42·8	·275
March ..	29·649	58·1	61·7	54·0	March, 8 days..	43·7	·327
Means ..	29·577	59·0	61·7	53·9	Average of Means.	40·3	·315

recorded in the foregoing Tables.

	Sunset.		Deductions from Columns 1 to 10 inches.							
	Mean of Dry and Wet Bulb Thermometers.									
Range of Number of Days.	Dry Bulb.	Wet Bulb.	Mean Temperature of Dew Point.	The Elastic Force of Vapour.	Weight of Vapour in a Cubic Foot of Air.	Additional Weight of Vapour to saturate a Cubic Foot of Air.	Degree of Humidity, complete Saturation = 100.	Average Weight of a Cubic Foot of Air.	Mean Amount of Cloud.	Mean Amount of Ozone.
Deg.	Deg.	Deg.	Deg.	In.	Grs.	Grs.	Deg.	Grs.		
8 = 36	61	55	49·8	·358	4·00	2·00	67	520	1·6	1
31 = 44	62·2	53·2	45·5	·303	3·42	2·70	54	516·4	1·2	1·2
29 = 50	62	51·7	42·8	·279	3·04	3·09	45	530·6	2·9	2·5
8 = 30	61·7	54	47·3	·327	3·68	2·53	59	526	·9	4·6

Weight of Vapour in a Cubic Foot of Air.	Additional Weight to saturate a Cubic Foot of Air.	Degree of Humidity.	Weight of a Cubic Foot of Air.
Grains.	Grains.		Grains.
4·00	2·00	67	528·0
3·42	2·70	54	515·9
3·04	3·09	45	530·6
3·63	2·53	59	526·1
3·52	2·58	56	530·1

Observations.

A few drops of rain fell on the 29th of December and on the 1st of January, but not enough to moisten the rain gauge. On the 29th of February there were two heavy but brief showers at Cairo, being the only real rain that fell since leaving Alexandria. On the 7th February, and for the two following days, a most violent storm of wind from W.N.W. occurred while at Thebes, making it well nigh impossible to leave the boat. The same took place on the 18th and 19th, though less violent. It succeeded very suddenly to intense heat; the thermometer touched its highest point on that day. On February 27th another violent wind storm, but of still shorter duration.

The mean temperature of the above period observed appears to be about the same as our three months of June, July, and August; and the humidity, as compared with the mean humidity of June, July, and August for the last six years as 56 to 81, showing a very remarkably high degree of dryness of the atmosphere of Egypt as compared with that of our own.

Summary of the Observations made in Egypt by Mr. Rhind, Lord Haddo, Dr. Abbott, Sir Gardiner Wilkinson, and Niebuhr.

	Year and Month.	Number of Days of Observation.	Locality.	Local Time.	
				9 a.m.	10 p.m.
Rhind.	1855, Nov.	19	Cairo	66·85	69·6
	„ Dec.	31	Nile	62·3	69·1
	1856, Jan.	31	Do.	62·5	68·2
	„ Feb.	29	Do.	62·0	68·2
	„ March	9	Do.	65·0	69·3
	„ „	22	Gizeh, in tents	67·7	64·6
	„ April	6	Gizeh, in tents	68·4	63·6
	„ „	3	Cairo	65·6	67·0
	Means ..	..	..	65·2	67·7
				7 a.m.	9 p.m.
Lord Haddo.	1855, Jan.	31	Nile	49·0	50·5
	„ Feb.	15	Do.	55·9	68·5
	Means ..	..	..	52·4	59·5
				9 a.m.	
Dr. Abbott.	1855, Nov.	30	Cairo	63·1	
	„ Dec.	11	Do.	68·1	
	„ Jan.	31	Do.	54·8	
	„ Feb.	29	Do.	56·5	
	„ March	31	Do.	56·3	
	„ April	9	Do.	62·7	
	Means ..	..	..	58·508	
				Various Hours, from 7 a.m. to 11 p.m.	
Sir G. Wilkinson.	1822, Jan.	21	Cairo	56·7	
	„ Feb.	7	Do.		
				a m.	p.m.
Do.	1848, Nov.	3	Nile	70·5	49·8
	„ Dec.	13	Do.	65·5	64·1
	1849, Feb.	2	Do.	60·0	68·0
	„ March	8	Do.	74·8	65·5
	Means ..	..	..	67·52	61·76
				8 a.m.	10 p.m.
Niebuhr.	1762, Jan. & Feb.	38	Cairo	45·1	48·6

The total result of all these observations, extending from 1762 to 1856, gives the average daily temperature as 57.9, or nearly 58 as the mean of the whole; while the mean temperature as deduced from my observations is 59, a very close approximation.

APPENDIX.

I.

FORMS OF CONTRACT.

No. 1.

Form of Contract for Hiring a Nile Boat.*

It is this day agreed between John C. Zuletes and ——, Gubernator, Esq.:

1st. That John C. Zuletes lets to ——, Gubernator, the Nile boat ——, of about —— tons, commanded by ——, manned, fitted, and furnished, according to inventory, for a voyage up the Nile, as far as [First *or* Second Cataract] (A) and back to [Cairo *or* Alexandria] (B).

2nd. The hire of the boat is, for —— months certain (C), at and after the rate of —— pounds per month (D), to commence from —— day of ——, and to continue till her return to [Cairo *or* Alexandria]; each month to consist of 30 days. One-half of this sum to be payable in advance on signing this contract (E).

* The Arabic for a contract is "megówleh"; and it is often called "going by megówleh," to signify contracting for the whole journey.

(A.) Insert here whether the limit is to be the first or second cataract. It had better be the second.

(B.) This is for hire of a boat, either at Alexandria or Cairo: if the former, make the contract to begin and end at Cairo, unless you wish to pass through the Delta.

(C.) It is usual to try and make you take the boat for three months certain; this should be resisted, and if it be so firmly, the owner gives in.

(D.) It is a new and vicious habit to stipulate for sovereigns or gold coin: this is a trick to be resisted. The pound is as much a pound to the owner as to the hirer of the boat.

(E.) The Egyptian months have each thirty days. It is usual to pay in advance; but verify the inventory before you sign the contract.

3rd. In the event of the boat being taken beyond the 1st cataract, an additional sum of —— pounds per month (F) is to be paid; in consideration of which, all risks and damages to the boat, fittings, furniture, &c., are assumed by the owner, John C. Zuletes; but any loss or damage to the goods or property of the hirer, ——, Gubernator, Esq., are to be borne by him, and not by the owner of the boat.

4th. The hirer has authority over the reis (commander) and crew, and may demand and cause the dismissal of any of them, or refer to the local authorities for the infliction of punishment.

5th. The navigation of the boat must be left to the reis, in whose judgment confidence and reliance must be placed, and who must be permitted to refuse to proceed by night, in bad weather, or in dangerous parts of the river (G).

6th. In the absence of wind, the reis and crew are to use all diligence in progressing by tracking, towing, or rowing, from sunrise to sunset.

7th. The hirer shall be the arbiter of the time of starting and stopping, as well as of the place at which he may please to stay, and the duration of his sojourn (H).

8th. The bestowal of baksheesh, during or at the end of the voyage, is at the will of the hirer, and in proportion to the satisfaction given (I).

(F.) This is a *sine qua non*. Some insist that the owner should pay the cost of passing the cataract; but unless an extra sum is paid in consideration, this ought not to be asked: on no account *whatever* take the risk of passing the boat over the cataract.

(G.) For the most part, the reis will make the best of his way at night, when there is wind, except above the first cataract, where the river is rocky, and a bump is dangerous. On descending, they almost always float all night. Tracking is not possible after the light fails.

(H.) Be firm on this head, and you will be saved much trouble and many squabbles.

(I.) The baksheesh question is a very vexed one; if you contract with your dragoman for it, give nothing more, unless it be an oke or two of

9th. During the voyage, the crew require a stoppage of 30 hours, on three occasions, between Cairo and Cairo, to bake bread, at places where ovens are established (J).

10th. Any damage sustained by, or loss occasioned to, the furniture during the voyage, not being fair wear and tear, and usage, or the result of carelessness of the crew, is to be made good by the hirer before giving up the boat, by settling with the reis, and giving a memorandum for the same to him.

11th. If the hirer should elect to proceed beyond the 1st cataract, in another boat, then the sum of —— pounds shall be deducted from the monthly hire (K).

12th. If the period for which the boat is hired shall exceed three months, or if the time at which the boat returns to Cairo shall be later than the 1st of March, then the hire of the boat shall be at the rate of —— pounds per month for every month after the said three months (L).

13th. If the hire of the boat shall exceed three months, then the reis will require the sum of —— pounds per month to pay wages to the crew; this sum is to be furnished by the hirer, who will take the reis's receipt, and the amount will be deducted at the final settlement. In faith whereof, both parties affix their signatures in duplicate.

tobacco now and then; if you do not contract, give half the baksheesh on arriving at the end of your ascending journey, the remainder at the close of the whole. £5 is ample for the whole crew and entire journey.

(J.) The crew prefer to bake their bread at Sioot and Esne, the two Wappings of the Nile. There are now capital ovens at Thebes; but the men don't like baking there, because they cannot have their frolics in the coffee shops with singers and dancing women. The traveller, *per contra*, gets 30 hours of pleasant sojourn at Thebes going up, and the same coming down, instead of the nasty concomitants of the other low places. Before leaving Cairo, announce your intention that they should bake at Sioot and Thebes going up, and at Thebes coming down. Be firm, and spare not for their crying.

(K.) About £10 is a fair allowance, if you hire a small boat at Assouan. There is no need to do so.

(L.) The diminution should not be less than £10 per month after three months, or if later than the 1st of March. There is no demand for boats after that period.

No. 2.

Inventory on board the Nile boat, Ghushne, delivered on ——day of——to ——, Gubernator.

CABIN FURNITURE.

Books, —— vols; maps, ——; divan pillows, cushions, and covers complete; 4 chairs (A), looking glasses (B), 4 *new* wool mattrasses; 6 pillows, *new* wool; 4 mosquito nets; 10 blankets, new (C); 24 sheets (D), 6 quilts, 12 pillow cases, 24 hand towels (E), 8 table cloths, 30 glass do., 12 napkins, 2 table covers, 4 table candlesticks, 4 chamber do., 5 basins and ewers, 4 mouth glasses, 4 kooleeh, 6 chambers, 1 cabin lamp, 1 do. for deck or mast head (F), 1 lantern.

PANTRY FURNITURE.

12 tumblers, 16 wine glasses, 4 decanters, 10 soup plates; 36 dinner plates, large and small; 12 dessert do., 12 meat dishes, 3 vegetable dishes and covers, 8 tea cups and saucers, 8 coffee do. and do., 1 tureen and ladle, 2 slop basins, 2 sugar do., 2 milk jugs, 6 egg cups, 1 milk pot, 2 tea pots, 1 coffee pot, 1 milk can (G), 18 large knives, 12 small do., 18 white metal forks, 12 small do., 1 cruet-stand, mustard pot, 2 salt cellars, 2 nut crackers, 2 corkscrews (H), 3 pie

(A.) See that the chairs are sound and strong.

(B.) Also that the glasses are not cracked or starred.

(C.) Two blankets, at least, to each bed, and two spare ones.

(D.) The sheets must be changed every week or 10 days at least.

(E.) See that the towels, and all other cloths and linen, are not in holes or worn threadbare, as is often the case.

(F.) There should be a good bull's-eye, to hoist at the mast-head, to show the locality of the boat at night.

(G.) This is a tin to fetch milk in from the shore.

(H.) Be sure to bring two corkscrews; one is certain to be broken.

dishes (I), salad bowl, 2 pudding dishes, 12 tablespoons, 12 dessert do., 8 tea do., filter and stand complete, 2 carving knives and forks.

KITCHEN.

4 copper saucepans, 2 stewpans, 3 baking pans, 1 gridiron, 1 tea kettle, 4 iron saucepans, 1 frying pan, 1 collander, 1 sieve or tammy, 1 cook's knife, saw and chopper, rolling pin, pastry board, 1 tin coffee pot, 1 canister for coffee, 1 coffee mill.

DECK FURNITURE.

Cane or wooden divan, or sofa, with cushions, mattrass, pillows and covers complete (J), 4 folding or lounge chairs, footstools, 2 rugs, fly flaps.

Rugs for cabin, or a carpet to cover the floor (K).

N.B.—This is not an imaginary, far less an extravagant inventory. Less than this should not be submitted to.

(I.) These are indispensable; and the best are iron ones, enamelled white inside. Oh! what we suffered for want of a pie-dish.

(J.) See that these are on board, or else you may have to carry cushions from cabin to deck, and *vice versâ*, every time you need them.

(K.) In addition to the plank by which you reach the shore from the boat, insist on a short companion ladder (four staves are enough), by which your ladies can get into and out of the sandal, or small boat, easily, and with propriety.

No. 3.

Form of a Contract with a Dragoman for his services in that capacity.

Dec. 6, 1859.

This is a contract between ——, Gubernator, and Ali Aboo Arrek, of Cairo, whereby the latter agrees to serve the former faithfully (both himself and his party) as dragoman and servant on a voyage up and down the Nile.

He agrees to perform all his duties with honesty, civility, cheerfulness, and attention.

That he will be sober, steady, and obliging, and obey all the reasonable orders and commands of Gubernator and his party; that he will protect him from fraud, imposition, and deceit, and use his best endeavours to keep the crew quiet and in performance of their duties.

That when at Cairo, or in other towns, so long as he is in receipt of pay, he will perform all duties of dragoman and servant to his hirer and party, whether in hotels or in the boat (A).

That he will cause the cook, waiter, and other servants to perform their duties on board the boat, and that he will truly and faithfully interpret all communications spoken in the language of the country.

Gubernator stipulates to pay the said Ali Aboo Arrek the sum of ——— pounds sterling per month (B) during the

(A.) If this clause is not inserted, these men will refuse to do anything till you are on board, and will not serve you in a hotel. This is an arrangement between them and the *valets de place*.

(B.) I paid my man £8 per month, and feeding him. While at Cairo, I paid 5*s*. a day for his board and lodging.

engagement, to commence from the date of this agreement, and to end the day the said Ali Aboo Arrek leaves the said Gubernator's service (C).

In faith whereof, &c.

(C.) This must be inserted, or he may leave you before half your voyage is done, and claim to be sent down to Cairo, and paid till he reaches that place. If the dragoman is discharged without any good reason—such as incompetency, fraud, or ill-behaviour—he is entitled to wages till he reaches the place where he was hired.

No. 4.

A Contract with a Dragoman for furnishing Provisions and everything required for the Voyage.

The dragoman, Aboo Golombo, agrees with Gubernator to take him and his party, four in number (two ladies and two gentlemen), up the Nile, as far as the [First *or* Second Cataract] and back, for the sum of —— pounds per diem (A).

Aboo Golombo is to take all the stores brought out from England, or purchased since, by Gubernator, at their invoice price (with the addition of the cost of carriage)—except wine, beer, and spirits.

He is to furnish food to the satisfaction of the party, that is to say—

Breakfast—tea, coffee, two meat dishes (hot or cold), bread, butter, eggs, and preserves.

Luncheon—bread, butter, biscuit, cheese, and fruit (so long as it can be procured).

Dinner—soup or fish, one entrée, one dish of meat, one of fowls, one of vegetables (at least), one of pudding or sweets, cheese, butter, and dessert; coffee after dinner, and whenever required during the day.

Tea in the evening.

If there be no luncheon, but an early dinner, then a supper of sardines, cold meat, preserves, bread, and cheese to be provided.

Oranges, lemons, or limes, for sherbet and other uses, to be provided.

He is to find all his own and other services, washing, lighting, firing, as well for the party as for the servants. He is to

(A.) I paid £2. 5*s.* per diem for four persons.

find wood and charcoal for cooking and for heating as much water as may be needed by the party for personal washing and bathing (A) and for laundry work.

He is to pay baksheesh as well to the crew as to guides and assistants on shore.

The cost of passing the cataract is to be paid by him.

All horses and donkeys required ashore, and all expenses contingent on visiting ruins, tombs, pyramids, &c., are to be borne by him.

Bread, in the European fashion, is to be baked every second day, or as often as may be required by the party.

He is to wash, or cause to be washed, all the linen and clothes, both personal and household.

In event of the voyage being given up before its completion, the compensation to Aboo Golombo shall be settled by two umpires, one to be chosen by each party in the usual way.

He is to pay for the watchman at the place of stopping for the night, and to be responsible for the personal safety of the party from ill usage by crew or natives, and also for the safety of the property of those on board.

The amount of money to be advanced to Aboo Golombo shall be one-third on the signing of this contract, one-third on returning to Thebes, and the remainder at the end of the voyage (B).

If Aboo Golombo shall fail to perform his contract to the just and reasonable satisfaction of Gubernator and his party, he shall submit to such a penalty as shall be agreed upon by two referees chosen as above stated.

In faith whereof, &c.

(A.) If this be not inserted, the dragoman will make a difficulty about a warm bath, which is a necessity from time to time for an invalid.

(B.) On no account part with your money till the precise time—it is your main stay.

No. 6.

Form of Contract with the Cook.

This contract is between Gubernator and Mahomed Ali. The former agrees to pay the latter the sum of four pounds ten shillings (£4. 10*s.*) per month for his services as cook and servant during a voyage up the Nile and back.

Mahomed Ali undertakes to bake bread, in the European fashion, as often as may be required for the party, and to do all that may be fairly demanded of him as cook and servant.

He agrees not to ask or require an assistant under him, to be civil, sober, clean, honest, and economical, and to waste neither provisions nor fuel.

Signed.

No. 5.

Form of Contract where the Dragoman contracts to find Boat as well as to provide for the party.

The Contract will consist of Contracts 3 and 4, or as much of them as the hiring party deem requisite, with the addition of these clauses:—

Aboo Golombo undertakes to provide a dahabeëh, clean, free from vermin, well-fitted, furnished, and provided with a competent reis, pilot, and adequate crew (A). That in the event of men falling sick or leaving the boat, others shall be provided at the expense of Aboo Galombo, at the next town reached.

That the boat shall be to the satisfaction of the hirer, and the articles of provision of the best quality.

That he shall pay every expense connected with the voyage, of every sort and kind.

That the hirer is to have entire control over the direction and duration of the voyage, the halting-places for the day and night, and the times of stoppage, whenever he may think fit to exercise his authority.

(A.) For a boat to carry four travellers, a crew of not less than 14 sailors should be furnished. I would refuse to start with less.

II.

LIST OF STORES TAKEN OUT AND USED IN MY JOURNEY (1859-60), FOR FOUR PERSONS.

Bitter Ale	13 dozen.	*E.*
Sherry	1 „	*A.*
Claret, Light	2 „	*A.*
Marsala	Quarter cask.	*A.*
Brandy	2 bottles.	*A.*
Rum	2 „	*A.*
*Bacon	20 lbs.	*E.*
*Hams	27 „	*E. & M.*
Tongues, Large	4.	*E.*
„ Small	6.	*E.*
Sardines	4.	*E.*
Preserves	18 lbs.	*E.*
Marmalade, Orange	8 „	*E. & C.*
Mock Turtle Soup	2 lbs.	Preserved Meats. *E.*
Ox Tail „	2 „	
Giblet „	2 „	
Corned Beef	1 „	
Haricot Mutton	1 „	
Irish Stew	1 „	
Calf's Head	2 „	
Haddocks	4 „	

Herrings	4 lbs.	Preserved Meats. *E.*
Oysters	2 „	
Lobsters	2 „	
Green Peas	2 „	
Arrow Root	½ lb.	*E.*
Mustard	1 „	*E.*
Tea	9 lbs.	*M.*
*Coffee	45 „	*C.*
Sugar	112 „	*C.*
Sugar, Soft	20 „	*C.*
Soap	25 „	*C.*
Wax Candles	18 dozen.	*C.*
Pickles	4 bottles.	*C.*
Harvey Sauce	2 „	*C.*
Ketchup	2 „	*C.*
Reading Sauce	2 „	*C.*
*Cheese	25 lbs.	*M.*
Black Pepper	¼ lb.	*C.*
White „	¼ „	*C.*
Oranges	1,200.	*A.* & *C.*
*Wood	600 lbs.	*A.*
*Charcoal	200 „	*A.*
Flour	1 barrel.	*A.*
*Potatoes	2 cwt.	*A.*
Plums	2 lbs.	*A.*
Almonds, Shelled	2 „	*A.*

Figs	2 drums.	*A.*
Pistachio Nuts	2 lbs.	*A.*
Dates	4 „	*C.*
Chesnuts	4 „	*C.*
Mishmish	5 okes.	*A.*
Sweet Herbs, Mixed	1 bottle.	*E.*
Salami	3 lbs.	*A.*
Chutnee	2 bottles.	*A.*
Salt	10 lbs.	*C.*
Biscuits	2 tins.	*C.*

A long pennant (not less than 30 feet) as a distinguishing flag for the main yard, and a small union-jack for the balacoon or mizen. *E.*

A few feet of inch-wide vulcanised india-rubber, to stop the draughty cabin windows.

E. England. *C.* Cairo.
A. Alexandria. *M.* Malta.

Of those articles marked with an asterisk, I did not take quite a sufficient quantity—especially potatoes, wood, and charcoal.

III.

THE FOLLOWING MEDICINES, AND THE QUANTITIES, SHOULD BE TAKEN OUT.

Powdered Rhubarb, 2 ozs.

Carbonate of Magnesia, 2 ozs.

Carbonate of Soda, 4 ozs.

Castor Oil, 1 lb.

Chalk and Opium Powders, 10 grains in each, 24.

Nitrate of Silver, in crystals, in a stoppered bottle, for eye lotions, 4 drs.

Sulphate of Zinc, for eye washes, 3 ozs.

Blue Pills, 2 grs. each, 24.

Calomel Pills, 1 gr. each, 24.

Opium Pills, ½ gr. each, 50.

Compound Rhubarb Pills, 48.

Colocynth Pills, compound, 3 grs. each, 36.

Laudanum,	½ lb.	For Liniments.
Chloroform,	1 lb.	
Soap Liniment,	1 lb.	
Tincture of Arnica,	½ lb.	

Ipecacuhana Lozenges, for coughs, 2 ozs.

Keating's Cough ditto, for ditto, 4 ozs.

Friar's Balsam, for cuts and wounds, 3 ozs.

Lint, 3 ozs.

Soap Cerate and Diachylon Plaster, a yard of each.

Brown's Blistering Tissue, 4 papers.

Paregoric, 4 ozs.

Aromatic Confection, in powder, 1 oz.

Quinine, ½ oz.

Scales and weights, and ounce and minim measure glass.

A few pill-boxes, and half-a-dozen or a dozen vials and corks.

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